

Appln No. 09/846,738

Amdt date July 24, 2003

Reply to Office action of April 24, 2003

REMARKS/ARGUMENTS

Claims 1 to 3, 5 to 17 and 19 to 31 are pending in this application, of which claims 1 and 31 are independent. Claims 1, 5, 12, 13, 14, 19 and 26 have been amended. Claims 27 to 31 have been added. Claims 4 and 18 have been canceled. The amendments and new claims add no new matter and find full support in the application as originally filed. In view of the above amendments and following remarks, Applicant respectfully requests reconsideration and a timely indication of allowance.

Rejections Under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1 to 4 and 13 to 18 under 35 U.S.C. § 102(b) as allegedly being anticipated by Schmitt (U.S. Patent No. 5,199,950). Applicant respectfully traverses this rejection. Claims 4 and 18 have been canceled. Claim 1 is directed to a steerable catheter comprising a tip section tubing that comprises "a core and an outer layer surrounding the core," as previously recited in original claim 4.

Schmitt is directed to a medical instrument having a "relatively rigid shaft (1) and a flexible tip (3) that is attached to the shaft (1)." (Abstract.) However, as shown in Fig. 8a, the flexible tip (3) comprises a single tubular member with an open central lumen (2) (col. 7, lines 45-52; and Fig. 8a), not a core and an outer layer surrounding the core, as presently claimed. Nowhere does Schmitt disclose, teach or suggest a tip section tubing that comprises "a core and an outer layer surrounding the core" as is required by claim 1. Consequently, Schmitt does not anticipate claim 1. Claims 2, 3

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and 13 to 17 depend from claim 1. Applicant has added claims 27 to 30, which also depend from claim 1. Claim 1 is now believed to be in condition for allowance over Schmitt. As such, Applicant submits that claims 2, 3, 13 to 17 and 27 to 30 are also allowable over Schmitt as being dependent from an allowable base claim and for the additional limitations they contain therein.

For example, claim 27 recites that "the one or more stabilizing features each have a generally round cross-sectional area." Claim 28 recites that "the one or more stabilizing features each have a generally pie-shaped cross-sectional area." Schmitt teaches that its strips 43 have a rectangular cross-sectional area (FIG 8a). As such, Schmitt does not disclose teach or suggest that "the one or more stabilizing features have a generally round cross-sectional area" as required by claim 27 or that "the one or more stabilizing features have a generally pie-shaped cross-sectional area" as required by claim 28. Therefore, for this additional reason, claims 27 and 28 are allowable over Schmitt.

Claim 29 recites that "the core comprises a first material and the outer layer comprises a second material that is different from the first material." As discussed above, Schmitt does not teach or suggest a core surrounded by an outer layer, much less a core that "comprises a first material and the outer layer comprises a second material that is different from the first material" as is required by claim 29. Therefore, for this additional reason, claim 29 is allowable over Schmitt.

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Claim 30 recites that "the core comprises a substantially solid material." Schmitt discloses a flexible tip that comprises a central lumen as opposed to a core. As such, Schmitt does not disclose, teach or suggest a core that "comprises a substantially solid material" as is required by claim 30. Therefore, for this additional reason, claim 30 is allowable over Schmitt.

Claim 31 is an independent claim directed to a steerable catheter comprising a tip section tubing that comprises one or more stabilizing features "wherein the one or more stabilizing features extend through the longitudinal axis of the tip section." Schmitt discloses strips 43 that are symmetrically disposed about a flexible tip 3. The flexible tip comprises a central lumen. The longitudinal axis of the flexible tip is in the central lumen. The central lumen does not contain one or more stabilizing features. As such, Schmitt does not disclose, teach or suggest one or more stabilizing features that "extend through the longitudinal axis of the tip section" as is required by claim 31, and therefore does not anticipate claim 31. Accordingly, Applicant respectfully requests that the rejection of claims 1 to 3 and 13 to 17 over Schmitt under 35 U.S.C. § 102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1 to 26 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hunjan (U.S. Patent No. 5,906,590) in view of Cohen (U.S. Patent No. 4,686,963) and Schmitt. Applicant respectfully traverses this rejection.

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Claims 4 and 18 have been canceled. The Examiner states that "Hunjan discloses the claimed invention including a steerable catheter assembly including a catheter, a tip section, a control handle and a puller wire control system. Hunjan does not disclose the specific means for stabilizing the steerable tip" and that Cohen discloses "a pair of stabilizing features disposed in the outer cylindrical wall and diametrically opposed in the tip portion of the catheter." (Office action, page 2.) However, Cohen discloses a medical instrument having a plurality of individually articulating vertebrae 52 or 90 that combine to form an articulating vertebrae assembly 36, which flexes up and down in a vertical arc. The goal of Cohen is to develop a method of interconnecting the individual vertebrae 52 or 90 that is better than prior art methods for interconnecting individual vertebrae. Cohen's solution is to interconnect the vertebrae 52 or 90 by the use of one or more stiffening members 60, 96 or 122.

Hunjan does not disclose, teach or suggest the use of individually articulating vertebrae or the use of an articulating vertebrae assembly. As such one skilled in the art would not be motivated to incorporate the stiffening member(s) 60, 96 or 122 of Cohen into the catheter of Hunjan. Schmitt does not contain the elements of Cohen that are missing from Hunjan. As such the combination of Hunjan, Cohen and Schmitt does not render claim 1 obvious. Claims 2, 3, 5 to 17 and 19 to 26 depend from claim 1. Applicant has added claims 27 to 30, which also depend from claim 1. Claim 1 is now believed to be in condition for allowance over the combination of Hunjan, Cohen

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and Schmitt. As such, Applicant submits that claims 2, 3, 5 to 17, 19 to 30 are also allowable over Hunjan, Cohen and Schmitt as being dependent from an allowable base claim and for the additional limitations they contain therein. New independent claim 31 contains the limitations of original claim 1 plus an addition limitation. As such, for the reasons stated above with respect to claim 1, Applicant respectfully submits that Hunjan, Cohen and Schmitt cannot be combined to reject claim 31. Accordingly, Applicant respectfully requests that the rejection of claims 1 to 3, 5 to 17 and 19 to 26 over Hunjan, Cohen and Schmitt under 35 U.S.C. § 103(a) be withdrawn.

In view of the above amendments and remarks, Applicant respectfully submits that claims 1 to 3, 5 to 17 and 19 to 31 are in condition for allowance, and a timely indication of allowance is respectfully requested. If there are any remaining issues that can be addressed by telephone, Applicant invites the Examiner to contact the undersigned at the number indicated.

Respectfully submitted,

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